

**SWITCHING POWER AMPLIFIER USING FREQUENCY TRANSLATING
DELTA SIGMA MODULATOR**

ABSTRACT OF THE DISCLOSURE

5

A radio frequency (RF) switching power amplifier comprises: a switching amplifier 203 to provide an amplified signal within an RF band; and a delta signal modulator (DSM) 207 that is operable; to control the switching amplifier in a feedback configuration, to process an input signal within an intermediate frequency (IF) band where the input signal corresponds to a base band signal and the amplified signal, and to provide an output signal within the RF band to drive the switching amplifier. Certain embodiments allow for or compensate for a floating or variable IF band and multiple RF bands.

10